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Ben Saidi

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EXAMINER

DAFTUAR, SAKET K

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/626,048
Filing Date: July 23, 2003
Appellant(s): SAIDI ET AL.

Raphael Freiwirth, Registration Number 52,918
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed February 22nd, 2010 appealing from the Office action mailed October 1st, 2009.

(1) Real Party in Interest

The real party in interest in this appeal is Qualcomm, Incorporated, 5775 Morehouse Drive, San Diego, California, 92121.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

(9) Grounds of Rejection

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: evaluating the stream of media to identify the one or more silence frames as recited in claims 1,7,13, and 19. The applicant providing supports on June 5th, 2009 merely discloses any "evaluation of media streams" as the instant application specification only directed to media frames not media streams. Subsequently, the provided clarification on June 5th, 2009 by applicants merely evaluates the silence frames rather than evaluating media stream(s). Therefore, the objection is still maintained.

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 7-11,13-17,19-23, 25, 27, 29, 31 and 33-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Yao et al. U.S. Patent Number 6,785,262 B1 (hereinafter Yao).

As per claim 1, Yao discloses requesting a group call at a first communication device (see column 2, lines 58-60; column 7, line 40 – column 8, line 29; examiner considers wireless communication system of Figure 3 and its request to establish connection as requesting a group call at a first communication device); receiving a stream of media from the first communication device wherein said stream of media comprises of one or more silence frames; (see column 3, lines 20-21; column 8, line 63 – column 9, line 15 and column 12, lines 14- 30; examiner considers receiving data at the receiver as receiving a stream of media from the first communication device wherein said stream of media comprises of one or more silence frames);evaluating the stream of media to identify the one or more silence frames (see figure 8-9, see column 16, line 49 – column 18, line 21 evaluating latency to determine the channel quality based on silence frames or erasure frames); and automatically suppressing the one or more identified silence frames from the received stream of media (see column 3, lines 53-58 ;column 8, line 63 – column 9, line 15 and column 12, lines 14- 30; examiner considers data frames are dropped at a second, higher rate if a processor determines that communication channel latency (The person skilled in the art would clearly recognizes such suppressing includes suppressing the silence frame) has increased significantly as automatically suppressing the one or more silence frames from the received stream of media).

As per claim 2, Yao discloses said suppressing includes suppressing an initial silence frame situated before a first media frame (see column 4, lines 8-40,

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examiner considers data frames are dropped in accordance with the rate at which data frame were encoded and a processor determines communication channel latency. The person skilled in the art would clearly recognize such suppressing includes suppressing an initial silence frame situated before a first media frame).

As per claim 3, Yao discloses said suppressing includes suppressing all initial silence frames situated before a first media frame (see column 4, lines 8-40, examiner considers data frames are dropped in accordance with the rate at which data frame were encoded and a processor determines communication channel latency. The person skilled in the art would clearly recognize such suppressing includes suppressing all initial silence frames situated before a first media frame).

As per claim 4, Yao discloses said suppressing includes suppressing a silence frame situated between two successive media frames (see column 4, lines 8-40, examiner considers data frames are dropped in accordance with the rate at which data frame were encoded and a processor determines communication channel latency. The person skilled in the art would clearly recognize such suppressing includes suppressing a silence frame situated between two successive media frames).

As per claim 5, Yao discloses said suppressing a silence frame includes suppressing the silence frame that is in excess of a predetermined number of silence frames situated between the two successive media frames (see column

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4, lines 8-40, examiner considers data frames are dropped in accordance with the rate at which data frame were encoded and a processor determines communication channel latency. The person skilled in the art would clearly recognize such suppressing includes suppressing the silence frame that is in access of a predetermined number of silence frames situated between the two successive media frames).

As per claim 7, Yao discloses requesting a group call at a first communication device (see column 2, lines 58-60; column 7, line 40 – column 8, line 29; examiner considers wireless communication system of Figure 3 and its request to establish connection as requesting a group call at a first communication device); receiving a stream of media from the first communication device wherein said stream of media comprises of one or more silence frames; (see column 3, lines 20-21; column 8, line 63 – column 9, line 15 and column 12, lines 14- 30; examiner considers receiving data at the receiver as receiving a stream of media from the first communication device wherein said stream of media comprises of one or more silence frames); evaluating the stream of media to identify the one or more silence frames (see figure 8-9, see column 16, line 49 – column 18, line 21 evaluating latency to determine the channel quality based on silence frames or erasure frames); and automatically suppressing the one or more silence frames from the received stream of media (see column 3, lines 53-58 ;column 8, line 63 – column 9, line 15 and column 12, lines 14- 30; examiner considers data frames are dropped at a second, higher rate if a processor

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determines that communication channel latency (inherits silence frame) has increased significantly as automatically suppressing the one or more silence frames from the received stream of media).

As per claims 8-11, claims 8-11 are computer readable medium of method claims 2-5 respectively. They do not teach or further define the limitations recited in claim 2-5 respectively. Therefore, claims 8-11 are rejected for the same reasons set forth in claim 2-5 supra.

As per claims 13-17 claims 13-17 are an apparatus claim of method claims 1-5 respectively. They do not teach or further define the limitations recited in claim 1-5 respectively. Therefore, claims 13-17 are rejected for the same reasons set forth in claim 1-5 supra.

As per claim 19, Yao discloses a receiver capable of receiving information (see column 3, lines 20-21, examiner considers receiving data at the receiver as a receiver capable of receiving information); a transmitter capable of transmitting information (see column 3, lines 3-4, examiner considers dropping data frames at transmitter as a transmitter capable of transmitting information); and a processor (see column 3, lines 12-15, examiner considers a processor located within a transmitter as a processor capable of carrying out suppressing silence frames in a stream of media) for evaluating the stream of media to identify the one or more silence frames (see figure 8-9, see column 16, line 49 – column 18, line 21 evaluating latency to determine the channel quality based on silence frames or erasure frames) and for automatically suppressing silence frames in a stream of

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media, the method comprising: receiving a stream of media from a user (see column 3, lines 20-21); and the silence frames from the received stream of media is suppressed (see column 3, lines 53-58, examiner considers data frames are dropped at a second, higher rate if a processor determines that communication channel latency (inherits silence frame) has increased significantly as the silence frames from the received stream of media is suppressed).

As per claims 20-23 claims 20-23 are an apparatus claim of method claims 2-5 respectively. They do not teach or further define the limitations recited in claim 2-5 respectively. Therefore, claims 20-23 are rejected for the same reasons set forth in claim 2-6, supra

As per claim 25, Yao discloses buffering and then forwarding the suppressed stream of media (see column 12, lines 14 – 29, buffering taking place at receiver buffer before transmitting the frames based upon receiver buffer underflow or overflow conditions).

As per claims 27, 29, and 31, claims 27, 29, and 31 do not teach or further define over the limitation as recited in claim 25. Therefore, claims 27, 29, and 31 are rejected under same scopes as discussed in claim 25, supra.

As per claim 33, Yao discloses determining whether the stream of media includes one or more silence frame between successive media frames of the stream of media, each media frame including data; and wherein the one or more silence frames are suppressed based on the determining step (see column 10, line 55 - column 12, line 50).

As per claims 34-36, they do not teach or further define over the limitation as recited in claim 33. Therefore, claim 34-36 are rejected under same scope as discussed in claim 33, supra.

(10) Response to Argument

As per arguments filed, appellant's arguments have been fully considered but they are not persuasive. Appellants continue to argue in substance that:

- a. Appellant's argument with respect to specification objection.

In response to appellant's argument with respect to specification objection has been considered and withdrawn by the examiner. Examiner respectfully thanks appellant for clarifying how the silence frames are evaluated while evaluating the media streams. Examiner would also like to take a note of appellant remarks from page 8 of Appeal brief where appellant discloses how media frames are evaluated as being a media frames and silence frames

"For further support, FIG. 6 of the Specification illustrates an example whereby" two silence frames following a media frame and two silence frames preceding a subsequent media frame are transmitted", and any other silence frames are suppressed or not transmitted (e.g., see [0042] of the Specification). To implement such an operation, it will be appreciated that the media stream 602 of FIG. 6, which contains both media and silence frames, has to be evaluated to figure out which frames are silence frames and which frames are media frames and further to

figure out which silence frames are to be dropped in accordance with the above- noted rule. Thus, the individual frames are evaluated as silence or non-silence frames, and then the relationships of the silence frames to the media frames within the stream are evaluated to determine whether a particular silence frame is to be dropped (i.e., in the example of FIG. 6, this means that if the silence frames is within two frames of a media frame then do not drop the silence frame; if not, drop the silence frame). "

It is noted that appellant is making a point that media streams are being evaluated to identify frames as a silence frames and non-silence frames. However, earlier before issuing a final office action, Examiner has contacted applicant assigned representative Mr. Raphael, Freiwirth with proposal to amend the claims in order to expedite the prosecution and seek an authorization for an examiner amendment (allowance). Examiner earlier has an opportunity to discuss this case with primary examiner and proposes to amend the independent claims to include "automatically suppressing **only** the one or more silence frames..." and to include the subject matter from claims 4-6 in the independent claims. However, during the phone conversation, applicant assigned representative Mr. Raphael Freiwirth Reg. no. 52,918 and Mark E. Olds, Reg. No. 46,507 declines examiner proposal for examiner amendment and insisted an office action.

b. Yao fails to disclose or suggest automatically suppressing silence frames as recited in claims 1, 7, 13, and 19 because Yao teaches frame-dropping at a fixed, predetermined rate without evaluating whether a frame is silence frame.

In response to appellant argument b), examiner would like to point out that Yao reference is directed to a method for "voice latency reduction in voice-over-data wireless communication system" similar to a method for "reducing media transmission latency" as discussed in instant application and also admitted by the appellant.

"Yao is directed to a method and apparatus for voice latency reduction in a voice-over- data wireless communication system.² With respect to Figure 8 of Yao, Yao teaches (i) analyzing communication system latency, (ii) determining whether the latency, as indicated by a frame error rate (FER), is above a threshold (804), and (iii) dropping frames at different fixed rates."

However, appellant continues to argue that Yao is directed to frame-dropping at a fixed, predetermined rate without evaluating whether a frame is silence frame. Examiner respectfully disagrees with appellant assertions. It appears that appellant is arguing based on his own assertions as Yao clearly discloses evaluating latency and clearly discloses that increased in latency happens due to overflows and high disruption caused by silence frame and poor channel conditions (see column 12, lines 15-29).

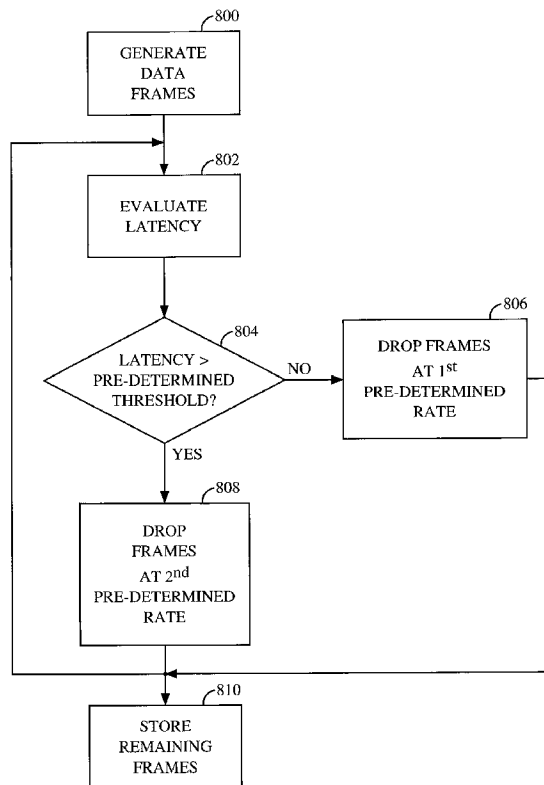


FIG. 8

“At the receiver, during poor channel conditions, receiver buffer first underflows due to the lack of error-free frames received, then overflows when the channel conditions improve. When the receive buffer underflows, silence frames, otherwise known as erasure frames, are provided to a voice decoder in order to minimize the disruption in voice

quality to a user. If the receive buffer overflows, or becomes relatively large, latency is increased.”

Therefore, once the latency is above predetermined threshold, Yao determines all conditions related to latency threshold and drop data at predetermined rate (see column 16, line 14 – column 17, line 41). As it is clear from Yao that silence frame was provided to a voice decoder in order to minimize the disruption, examiner considers silence frame embodied in “data frames [silence frame provided to voice encoder] generated by voice encoder are then dropped at the first predetermined rate” See column 17, lines 7-16 below.

“In step 804, the communication system latency is evaluated in comparison to a first predetermined threshold. In transmitter 400, if the communication channel quality is less than a first predetermined threshold, step 806 is performed in which data frames from voice encoder 406 are dropped at a first predetermined rate. In the exemplary embodiment, the first predetermined threshold is a number of NAKs received over a predetermined period of time, or the size of queue 408. Data frames generated by voice encoder 406 are then dropped at the first predetermined rate, in the exemplary embodiment, between 1 and 10 percent.”

Further applicant argues that Yao does not disclose that the dropped frame is actually a silence frame. Examiner considers the following disclosure of

Yao where Yao discloses dropping silence frames to minimize the disruption in voice quality:

"silence frames, otherwise known as erasure frames, are provided to a voice decoder in order to minimize the disruption in voice quality to a user. If the receive buffer overflows, or becomes relatively large, latency is increased. Therefore, when the communication channel quality becomes degraded, it is desirable to drop frames at an increased rate at transmitter 400, so that neither queue 408 nor the receiver buffer grow too large, increasing latency to intolerable levels." (see column 12, lines 21-25)

Further, applicant argues that such suppressing can be achieved without dropping silence frame is not reasonable and based on examiner own assertion are not persuasive. Examiner respectfully asserts that Yao provided a reasonable fact why the person skilled in the art would drop frames and such dropping would lead to improve the latency in packet transferring. If the suppressing, as argued by applicant, is reducing the silence frame, then examiner respectfully reminds it will also lead to improve the latency and that will give the reasonable reason why one skilled in the art would perform such dropping and hence, Yao also discloses dropping silence frames.

Applicant continues to argue that Yao does not disclose or suggest determining whether one or more silence frames occur between successive media or non-silence frames are not persuasive as Yao clearly discloses in column 4, lines 8-40, data frames (includes silence frames, see column 12, lines

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21-25, also appellant admits that frames are being evaluated as silence frames and non-silence frames when explaining the evaluation and determination of media frames) are dropped in accordance with the rate at which data frame were encoded and a processor determines communication channel latency. The person skilled in the art would clearly recognizes such suppressing includes suppressing the silence frame that is in access of a predetermined number of silence frames situated between the two successive media frame

Therefore, Yao does discloses automatically suppressing silence frames and in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "without evaluating a frame is silence frame") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

c. The examiner's position that suppressing silence frames can be achieved without dropping silence frame is not reasonable and rejection is improper even based on the examiner's own assertions, see appeal brief arguments on page 11, Appeal brief, argument #3.

In response to appellant argument c), the examiner has not made a rejection based on the reason as discussed in response to the arguments "b" above, not to the reason as cited by the appellant including assigned

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representative. The appellant argues that examiner states "one having ordinary skill in the art..." only when examiner was addressing to support the arguments to disclose relevancies not to reject the claims in claim language. Appellant continues to argue with respect to "particular silence frame", however, appellant claims, in general, directed to silence frames only. However, it is noted that appellant has declined examiner offer to include "**dropping only**" silence frames. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "particular silence frame") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

d. Yao does not disclose or suggest determining whether one or more silence frames occur between successive media or non-silence frames as recited in dependent claims 33-36, see appeal brief arguments on page 11, Appeal brief, argument #4.

In response to appellant arguments d), examiner respectfully refers back appellant to the response to the argument "a" where examiner cited that Yao discloses "silence frame known as erasure frames are provided to a voice decoder in order to minimize the disruption in voice quality to a user." In order for Yao to provide latency reduction, Yao must have determine occurrence of at

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least one silence frame when providing such silence frame or erasure frames to voice decoder. Therefore, appellant arguments that Yao does not disclose or suggest determining one or more silence frame is not persuasive and, appears to be based on appellant own assertion, at least for the reason when Yao discloses providing such “silence frame, also known as erasure frames, to a voice encoder to minimize the disruption in voice quality.”

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner’s answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/S. K. D./

Examiner, Art Unit 2451

/John Follansbee/

Supervisory Patent Examiner, Art Unit 2451

Conferees:

/HASSAN PHILLIPS/

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